Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Scot Maxwell
410 A Street
Lewistown, MT 59457

2. Type of action: Application for Beneficial Water Use Permit 30025168-41S

3. Water source name: Unnamed Tributary of Big Spring Creek

4. Location affected by project: The point of diversion and reservoir are located in SW NW NE, Section 16, T15N, R18E, Fergus County.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

This application is for construction of a dam to create a reservoir that would supply 0.1 acre-feet (AF) of livestock water for 5 animal units of and 2.1 AF for a shelter belt (irrigation of trees only) within a 3 acre parcel. An additional 1.5 AF will be consumed due to evaporation of water from the reservoir. The dam will be constructed on an unnamed tributary of Big Spring Creek in the SW NW NE Section 16 T16N R18E with a capacity of 3.4 AF.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

Dept. of Environmental Quality Website - TMDL 303d listing
MT. National Heritage Program Website - Species of Concern
USDI Fish & Wildlife Service – Wetlands Online Mapper
USDI Fish & Wildlife Service Website - Endangered and Threatened Species Fergus County, MT
MT State Historic Preservation Office - Archeological/Historical Sites
USDA Natural Resources Conservation Service – Web Soil Survey

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: Low likelihood of impact.

The project will be constructed on an Unnamed Tributary of Big Spring Creek. Big Spring Creek is not identified as chronically or periodically dewatered by DFWP.

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: Low likelihood of impact – minor adverse impact.

Big Spring Creek (from East Fork to the mouth) is listed on the 2004 Montana 303(d) list as a category 5 stream – impaired/threatened w/ TMDL required. This reach has been determined to fully support agriculture, industrial use, and drinking water use. It partially supports recreational swimming, aquatic life, and cold-water fishery. The probable causes for the impairment are PCB's, nutrients, siltation, habitat alterations, and riparian and fish habitat degradation. The probable sources are listed as agriculture and grazing related sources, land disposal, onsite wastewater systems, municipal point sources, habitat modification, and removal of riparian vegetation. The construction phase of this project will likely modify the flow regime and siltation patterns on the tributary, though the impacts to Big Spring Creek are expected to be minor.

Groundwater *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: Low likelihood of impact.

No impacts to groundwater are anticipated as a result of this project. Given the relatively small size of the drainage area when compared to the total drainage of the creek, impacts to surface water flows in Big Spring Creek would be insignificant.

DIVERSION WORKS *- Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: Minor impact.

As stated above, the construction phase of this project will likely modify the flow regime and siltation patterns of the tributary, although the impacts to Big Spring Creek are expected to be minor given the relatively small size of the drainage area behind the impound structure.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: Low likelihood of impact.

The website for USDI Fish & Wildlife Service Endangered, Threatened, Proposed, and Candidate Species lists the Pallid Sturgeon and the Black-Footed Ferret as Endangered and the Bald Eagle as Threatened in Fergus County. No known Species of Concern exist within the area of interest. (T15N R18E)

Wetlands *- Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: Low likelihood of impact.

There are no known wetlands associated with this application. The USDI Fish & Wildlife Service – Wetlands Online Mapper has no data available for the project location.

Ponds *- For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: Low likelihood of impact.

The project will provide habitat for migrating waterfowl and other water birds.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE *- Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: Low likelihood of impact.

The USDA-NRCS Web Soil Survey indicates the dominant soil unit in the area as the Winifred-Windham-Eltsac Complex. The rating for this soil unit associated with pond reservoir areas is said to be "somewhat limited." Limiting factors could include slope, seepage, and depth to bedrock. Fair performance and moderate maintenance can be expected. Temporary soil erosion and compaction are likely during project construction. Upon final completion, the area will be re-vegetated and erosion and compaction should return to natural levels. The sodium adsorption ratio is 0.9 signifying a low likelihood of impacts from saline seep.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS *- Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: Low likelihood of impact.

While normal construction disturbance may encourage the establishment of noxious weeds, the disturbance should be localized and range management practices should keep them under control. It is the responsibility of the property owner to control noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: Low likelihood of impact.

It is unlikely air quality would be impacted; as this project would have no emissions other than normal construction activities.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: Low likelihood of impact.

The State Historic Preservation Office found that there is a low likelihood cultural properties will be impacted; a cultural resource inventory is unwarranted at this time.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: Low likelihood of impact.

No additional impacts are anticipated.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: Low likelihood of impact.

No local environmental plans or goals have been identified.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: Low likelihood of impact.

The project is consistent with historic land use in the area and would not place additional impacts on access or quality of recreational activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: Low likelihood of impact.

Since its introduction to the U.S. in 1999, West Nile virus has become a potential threat in many states. In 2006, 4 in every 1000 mosquitoes captured on the Milk River near Malta, MT were infected with West Nile. Mosquito habitat development has been associated with standing water containing debris and vegetation. Proper weed management and pond maintenance will help to control the conditions required for larva growth, thus making the impacts associated with the stagnant water insignificant.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**__ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: No Impact

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) Cultural uniqueness and diversity? None

(*b) Local and state tax base and tax revenues?* None

(c) Existing land uses? None

(*d) Quantity and distribution of employment?* None

(e) Distribution and density of population and housing? None

(f) Demands for government services? None

(g) Industrial and commercial activity? None

(h) Utilities? None

(i) Transportation? None

(j) Safety? None

(k) Other appropriate social and economic circumstances? None

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts - No secondary impacts are anticipated.

Cumulative Impacts - No cumulative impacts are anticipated.

3. ***Describe any mitigation/stipulation measures:***

No conditions for mitigation/stipulation have been identified.

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

No action alternative: deny the application. This alternative would result in none of the benefits to the applicant.

PART III. Conclusion

1. Preferred Alternative

The preferred alternative is the proposed alternative.

2 Comments and Responses

None Received.

3. ***Finding:***
*Yes___ No_**X**__ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

None of the identified impacts for any of the alternatives are significant as defined in ARM 36.2.524.

Name of person(s) responsible for preparation of EA:

Name: Douglas Mann
Title: Water Resources Specialist - LRO
Date: 4/12/2007